

REMARKS

Claims 1-10 are pending in the application. Applicant would like to thank the Examiner for indicating that claims 9 and 10 are allowed and that claims 3-5 and 7-8 are allowable.

Claims 1, 2 and 6 are rejected as unpatentable over YIN et al. 5,982,748 in view of CHOW et al. 6,438,134. This rejection is respectfully traversed.

Claim 1 includes the step of calculating an estimated bandwidth to be assigned to an existing QoS-unspecified traffic on the link associated with the QoS-specified connection request.

By way of example, page 10, lines 14 through page 11, line 1 of the present application, disclose that a cell traffic computation section 13 can calculate an average reception/transmission traffic of all UBR-traffic virtual connections currently established in a certain input/output line module by adding up N records contained in the cell traffic management table 21. A determination of whether the QoS-specified connection request is accepted is based on a combination of an assigned bandwidth and the estimated bandwidth.

The position set forth in the Official Action is that YIN et al. disclose a method for controlling admission of connection requests but that YIN et al. do not teach calculating an estimated bandwidth to be assigned to an existing QoS-unspecified traffic on the link associated with the QoS-specified

connection request. However, the Official Action indicates that YIN et al. teach a step of determining whether the QoS-specified connection request is accepted based on a combination of an assigned bandwidth and the estimated bandwidth. Since YIN et al. do not teach an estimated bandwidth, as noted above, it is therefore not apparent how YIN et al. could teach determining whether the QoS-specified connection request is accepted based on the combination of the assigned bandwidth and the estimated bandwidth.

Based on applicant's understanding, the method of YIN et al. determines the available resources for the class of service associated with the requested connection. Specifically, Table 1 on column 3, lines 45-58 of YIN et al. teaches a plurality of service classes. These service classes include available bit rate (ABR), constant bit rate (CBR), and variable bit rate (VBR). Column 4, lines 49-55 of YIN et al. further disclose that unspecified bit rate traffic (UBR) is also a class of service supported by the network node. Accordingly, as disclosed at column 5, lines 61-67 of YIN et al., the available resources are determined by considering the total resources available to the requested class of service and the resources available assigned to existing connections using the requested class of service. Therefore, each existing class of service, including UBR, has its own available bandwidth.

If, for example, 30% of the UBR bandwidth is being used, then 70% of UBR bandwidth is available. However, the UBR bandwidth may only be 20, 30 or even 50% of the entire available bandwidth. YIN et al. do not take into account the entire available bandwidth, only that bandwidth which is available to UBR. It is therefore not apparent how the teachings of YIN et al. would allow one of ordinary skill in the art to make a determination whether the QoS-specified connection request is accepted based on a combination of the assigned bandwidth and the estimated bandwidth, since the YIN et al. approach is only interested in the assigned bandwidth available to each requested class of service.

Modifying YIN et al. by combining YIN et al. with CHOW et al., as proposed in the Official Action, would entail combining two different requested classes of service. Such proposed modification is opposite the teachings of YIN et al.

MPEP §2143(01) states that if the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959).

In addition, it does not appear that the CHOW et al. reference teaches that for which it is offered. Specifically,

CHOW et al. is offered for the teaching of calculating an estimated bandwidth to be assigned to an existing QoS-unspecified traffic on the link associated with the QoS-specified connection request. Column 12, lines 30-36 of CHOW et al., noted in the Official Action, disclose that the idle bandwidth is distributed in a finite manner by the secondary WFQ sub-scheduler 116 by giving the aggregate rtVBR2/3, nrtVBR, UBR and ABR traffic some predetermined ratio, ρ_i , of the total available bandwidth.

Applicant's understanding of this teaching is that each service class, including UBR, is assigned a specific predetermined bandwidth based on the total available idle bandwidth. Since the value is predetermined, it is not based on existing QoS-unspecified traffic on the link.

As set forth above, page 10, lines 21-27 of the present application disclose that a cell traffic computation section 13 can calculate an average reception/transmission traffic of all UBR-traffic virtual connections currently established in a certain input/output line module by adding up N records contained in the cell traffic management table 21.

Column 6, lines 61-63 of CHOW et al., discloses that the idle bandwidth allocated to each service class is divided equally amongst connections belonging to the same class. The equal assignment is a predetermined number. Column 6, lines 64-67 of CHOW et al. further disclose that alternatively, the idle

bandwidth allocated to each service class could be divided amongst connections of the same class in proportion to their guaranteed minimum service rates. Therefore, the idle bandwidth allocated to UBR is either a predetermined number that is the same for each service class or is a predetermined value based on the guaranteed minimum service rates of each service class. CHOW et al. do not teach or suggest calculating an estimated bandwidth to be assigned to an existing QoS-unspecified traffic (currently established connections) as recited in claim 1.

Therefore, CHOW et al. does not teach that for which it is offered and, in any event, the proposed combination of YIN et al. and CHOW et al. would change the principle of operation of YIN et al. such that the teachings of the references are not sufficient to render the claims *prima facie* obvious.

Claim 2 depends from claim 1 and further defines the invention and is also believed patentable over the proposed combination of references.

Claim 6 provides a call admission control system that includes a call admission manager for calculating an estimated bandwidth by adding up average QoS-unspecified traffics for all existing QoS-unspecified connections by a link associated with a QoS-specified connection request, wherein the estimated bandwidth is a bandwidth to be assigned to the existing QoS-unspecified connection of the link, and determining whether the QoS-specified

connection request is accepted, based on a combination of the estimated bandwidth and an assigned bandwidth that is already assigned in the link.

The comments above regarding claim 1 are equally applicable to claim 6.

In view of the foregoing remarks, it is believed that the present application is in condition for allowance. Reconsideration and allowance are respectfully requested.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

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